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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/271,581 Filing Date: March 18, 1999 Appellant(s): RAO ET AL.

Stephen A. Terrile
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07 April 2006 appealing from the Office action mailed 07 November 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

Claims 1, 10, 18, 20, 22, 23 contain(s) substantial errors as presented in the Appendix to the brief. The claims do not reflect the amendments to the claims filed 26 October 2005. The claim listing from the amendment filed 26 October 2005 with be included herewith.

(8) Evidence Relied Upon

5,034,980	KUBOTA	07-1991
6,389,541	PATTERSON	05-2002

(9) Grounds of Rejection

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The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 4, 5, 8, 10, 12, 13, 16, 18, 20, 22, 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541. Referring to claims 1, 10, 18, 20, 22, and 23, The Board of Patent Appeals and Interferences rejected the claims in the decision mailed out on 30 August 2005. From the decision:

As discussed above, Kubota teaches the storage of information/key associated with a microprocessor which identifies the microprocessor and is used to decrypt encrypted software for use only by that microprocessor with a specific prestored key. We find this teaching to be a teaching of storing identification which would identify the manufacturer of the microprocessor. Similarly, we find this teaching of storing specific identification of the microprocessor akin to a Vehicle Identification Number NIN) on an automobile. Furthermore, we find the specific identification of the manufacturer of the microprocessor to readily suggest that any manufacturer information for any other components of the system or the overall system may be stored so as to limit the use of various software programs and other system modifications as disclosed and suggested by Kubota. (Kubota at column 3, lines 16-31.) Furthermore, we find that Kubota suggests the duplication of cipher codes for certain groups of computer's when all will be used at the same location, such as, a school so that a group license for software may be used for all the computers in a classroom. (Kubota at col. 6, line 66-col. 7, line 5.) With Kubota's specific suggestion that the identification information is typically used in the personal computer, we find this teaching to suggest that any application using a microprocessor could similarly code manufacturer information into the system. This code could either be hardcoded in the microprocessor at the time of manufacture or in the software which is used at the time of boot up, such as, in the BIOS. Most computers and components therein have identification information stored and used during the boot up of the computer. Therefore, we find that the teachings of Kubota teach or fairly suggest all of the claimed limitations but for the storage of the encryption key information in a configuration file and searching therein for the key.

As evidence of the well known use of the a configuration file or registry file in a Microsoft Windows Operating System, we rely upon the teachings of Patterson which clearly set forth the ordinary operation in the Windows system. Therefore, we find this to be a compelling suggestion of the location for the storage of encryption/decryption information which would also identify the manufacturer of the computer system. (Patterson at col. 3, lines 37-63.)

Appellants argue that providing manufacturer specific identification information identifying a computer system manufacturer is "patentably distinct from uniquely identifying a particular microprocessor as disclosed by Kubota." (Brief at page 8.)

Appellants further argue that neither Kubota nor Patterson provides a disclosure relating to providing manufacturer specific information identifying a computer system manufacturer. (Brief at page 8.) While we agree with appellants that there is no express teaching concerning the overall computer system manufacturer, we find express suggestions in the disclosure of Kubota that modifications are within the level of skill in the art and we find express teachings of the incorporation of the microprocessors into computer systems and the plural computers/microprocessors can be coded similarly so as to allow group licenses for software. We find these extensions of the teachings of Kubota to suggest providing manufacturer specific information identifying a computer system manufacturer.

With respect to the combination made by the Board above, it would be an inherent feature of this combination to have the installation procedure of the above combination occur after the sale of the computer system because Kubota discloses that the identification information/key is hardcoded in the microprocessor or implemented in BIOS information at the time of manufacture. Therefore, the software installation procedure disclosed in Kubota would occur after the computer system has been sold. If the software were to be installed before the sale of the computer system, the software would have been installed at the time of manufacture along with the hardcoding of the identification information/key in the microprocessor or implementation in BIOS information. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the computer software that is installed in the copy protection system of the combination disclosed by The Board because the manufacturer of the computer systems would keep their identification/keying information secret and would therefore themselves encrypt the software to be distributed to their computer systems for installation. Keeping their identification/keying information secret would help prevent users of the manufacturer's computer systems from mistakenly installing computer software provided by other manufacturers.

Referring to claims 5, 13, Kubota discloses a system for providing copy protection wherein a microprocessor is encrypted with a unique code during its manufacture. A software package is encrypted to function uniquely with a particular microprocessor such that only the unique cryptographic code in the microprocessor can decipher it (Abstract, Col. 2, lines 1-45). Microprocessor also has means to store software information on floppy disks and hard disks (Col. 1, lines 15-63), which meets the limitation of copying the deciphered data onto another nonvolatile storage device connected to the computer system.

Referring to claims 24-28, Kubota discloses that the user must obtain a special program to perform the decryption and installation procedures (Col. 2, lines 19-32), which meets the limitation of the reading, determining and deciphering are performed by a setup program.

Referring to claims 4, 8, 12, 16, Kubota discloses a system for providing copy protection wherein a microprocessor is encrypted with a unique code (configuration file) during its manufacture (manufactured by a computer system manufacturer, identifying the computer system manufacturer). A software package is encrypted to function uniquely with a particular microprocessor such that only the unique cryptographic code in the microprocessor (identification information) can decipher it (read configuration file, ensure that the software is installed only on a computer system manufactured by the computer system manufacturer)(Abstract, Col. 2, lines 1-45). Microprocessor also has means to store software information on floppy disks and hard disks (non-volatile storage)(Col. 1, lines 15-63). Kubota does not disclose storing the key in a registry file that is stored on a nonvolatile storage device. Patterson discloses a system to regulate access to digital content where on the Windows Operating System a registry file is used to store the unique coded key (Col. 3, lines 54-56), and

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the use of CD-ROM (Col. 3, lines 39-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the key taken from the configuration file in Kubota in a registry file in order to lock the installed object to that particular machine as taught in Patterson (Col. 3, lines 56-63).

Claims 2, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541, as applied to claim 1, 10 and in view of Charabaszcz, U.S. Patent No. 6,363,497. Referring to claims 2, 11, in addition to the teachings above, Kubota does not disclose a BIOS memory file included in the configuration file. Charabaszcz discloses a primary server that calls a backup server to read the BIOS or configuration files when the primary server goes down (Col. 12, lines 57-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a BIOS memory file with the configuration file of Kubota in order to have both the BIOS file and configuration file information together for system reset purposes as taught in Charabaszcz (Col. 12, lines 61-65).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541, in view of Charabaszcz, U.S. Patent No. 6,363,497 as applied to claim 2 above, and further in view of Dollahite, U.S. Patent No. 5,748,877. Referring to claim 3, in addition to the teachings above, Charabaszcz does not disclose a BIOS memory file stored on a nonvolatile memory. Dollahite discloses a BIOS memory file stored on an electrically erasable programmable read-only memory (EEPROM) (Col. 3, lines 3-9), which by definition is nonvolatile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a BIOS memory file stored

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on an EEPROM in the technique for mass distribution of software of Kubota in order to save the state of the PC to a hard disk for resetting purposes as taught in Dollahite (Col. 1, line 63- Co. 2, line 5).

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541, as applied to claims 1, 10 and further in view of Cooper, U.S. Patent No. 5,757,904. Referring to claims 6 and 14, in addition to the teachings above, Kubota does not disclose checking the authenticity of the key taken from the configuration file. Cooper discloses a method for providing distributed software where the decryption key provided by the software vendor is authenticated (Col. 15, lines 42-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to authenticate the key used in the technique for mass distribution of software of Kubota in order to inform the user-controlled system that the key taken from the configuration file is authentic as taught in Cooper (Col. 15, lines 54-60).

Claims 7 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541, as applied to claims 1, 10 and further in view of Pearce, U.S. Patent No. 5,694,582. Referring to claims 7 and 15, in addition to the teachings above, Kubota does not disclose the reading and determining program being stored in a dynamic linked library. Pearce discloses an operating system that loads an executable file for execution and replaces references with addresses that are valid for usage in function calls. A dynamic link library is a module that satisfies these references by dynamic linking (Col. 5, lines 10-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the program that reads the configuration file and determines

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the key to be stored in a dynamic linked library in order to provide runtime support code that is linked to an executable file as taught in Pearce (Col. 5, lines 3-5).

Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541, as applied to claims 1, 10, and further in view of Saxena, U.S. Patent No. 6,259,449. Referring to claims 9 and 17, in addition to the teachings above, Kubota does not disclose storing data on a Web Page accessible to a global computer network. Saxena discloses a web server that stores data in the form of web pages and transmits these pages as Hypertext Markup Language (HTML) files over the Internet network to a host computer (Col. 3, lines 37-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to store data from the nonvolatile storage devices in Kubota as web pages so that the data is accessible over the Internet through a web browser as taught in Saxena (Col. 3, lines 41-46).

Claims 19 and 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota, U.S. Patent No. 5,034,980, in view of Patterson, U.S. Patent No. 6,389,541 as applied to claims 18 and 20 above, and further in view of Charabaszcz, U.S. Patent No. 6,363,497. Referring to claims 19 and 21, in addition to the teachings above, Patterson does not disclose a BIOS memory file included in the configuration file. Charabaszcz discloses a primary server that calls a backup server to read the BIOS or configuration files when the primary server goes down (Col. 12, lines 57-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a BIOS memory file with the configuration file of Kubota in order to have both the BIOS file and configuration file information together for system reset purposes as taught in Charabaszcz (Col. 12, lines 61-65).

(10) Response to Argument

Applicant's argument that rejection above does not appreciate that or take into consideration that the claim limitations that set forth that the after sale software is provided by the computer system manufacturer and that the after sale software is installed only on a computer system manufactured by the computer system manufacturer is not persuasive because as stated by the BPAI:

Kubota teaches the storage of information/key associated with a microprocessor which identifies the microprocessor and is used to decrypt encrypted software for use only by that microprocessor with a specific prestored key. We find this teaching to be a teaching of storing identification which would identify the manufacturer of the microprocessor. Similarly, we find this teaching of storing specific identification of the microprocessor akin to a Vehicle Identification Number NIN) on an automobile. Furthermore, we find the specific identification of the manufacturer of the microprocessor to readily suggest that any manufacturer information for any other components of the system or the overall system may be stored so as to limit the use of various software programs and other system modifications as disclosed and suggested by Kubota. (Kubota at column 3, lines 16-31.) Furthermore, we find that Kubota suggests the duplication of cipher codes for certain groups of computers when all will be used at the same location, such as, a school so that a group license for software may be used for all the computers in a classroom. (Kubota at col. 6, line 66-col. 7, line 5.)

The teaching in Kubota of a group license of software (Col. 6, line 67 – Col. 7, line 5) and the transmission of the copy protected software over telecommunications lines (Col. 7, lines 6-9) explicitly suggests that the software is provided after the sale of the computer system. The BPAI goes on further to say that:

With Kubota's specific suggestion that the identification information is typically used in the personal computer, we find this teaching to suggest that any application using a microprocessor could similarly code manufacturer information into the system. This code could either be hardcoded in the microprocessor at the time of manufacture or in the software which is used at the time of boot up, such as, in the BIOS. Most computers and components therein have identification information stored and used during the boot up of the computer. Therefore, we find that the teachings of Kubota teach or fairly suggest all of the claimed limitations but for the storage of the encryption key information in a configuration file and searching therein for the key.

As evidence of the well known use of the a configuration file or registry file in a

Microsoft Windows Operating System, we rely upon the teachings of Patterson which clearly set forth the ordinary operation in the Windows system. Therefore, we find this to be a compelling suggestion of the location for the storage of encryption/decryption information which would also identify the manufacturer of the computer system. (Patterson at col. 3, lines 37-63.)

Appellants argue that providing manufacturer specific identification information identifying a computer system manufacturer is "patentably distinct from uniquely identifying a particular microprocessor as disclosed by Kubota." (Brief at page 8.) Appellants further argue that neither Kubota nor Patterson provides a disclosure relating to providing manufacturer specific information identifying a computer system manufacturer. (Brief at page 8.) While we agree with appellants that there is no express teaching concerning the overall computer system manufacturer, we find express suggestions in the disclosure of Kubota that modifications are within the level of skill in the art and we find express teachings of the incorporation of the microprocessors into computer systems and the plural computers/microprocessors can be coded similarly so as to allow group licenses for software. We find these extensions of the teachings of Kubota to suggest providing manufacturer specific information identifying a computer system manufacturer.

Therefore, as decided by the BPAI, the teachings of Kubota and Patterson suggest the encryption of computer software using a computer system manufacturer specific key that is stored in a computer system manufactured by that specific manufacturer to enable the computer system in question to decrypt the software using the stored key. The very same computer system manufacturer with which the key corresponds would distribute this computer software, which has been identified above as being after sale software, because only that manufacturer would have access to the key. For instance, Gateway would not encrypted and distribute computer software with Dell's encryption key and visa versa.

Applicant's argument that providing manufacturer specific identification information identifying a computer system manufacturer is patentably distinct from uniquely identifying a particular microprocessor as disclosed in Kubota is not persuasive because the BPAI decision mailed on 30 August 2005 specifically states that express suggestions in the disclosure of Kubota that modifications are within the level of skill in the art and we find express teachings of the

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incorporation of the microprocessors into computer systems and the plural computers/microprocessors can be coded similarly so as to allow group licenses for software. We find these extensions of teachings of Kubota to suggest providing manufacturer specific information identifying a computer system manufacturer (Page 8 of BPAI decision).

Applicant's argument that Kubota and Patterson do not provide any disclosure relating to computer systems, much less identifying a particular computer system manufacturer such that after sale software provided by the computer system manufacturer and after sale software is installed only on a computer system manufactured by the computer system manufacturer is not persuasive in view of the above discussions of the BPAI decision, the discussion with respect to after sale software from Kubota, and the discussion of how computer software would be distributed so that only computers manufactured by specific manufacturers could decrypt the software.

Applicant's argument that neither Kubota or Patterson disclose or suggest a method of selectively installing software onto a computer system manufactured by a computer system manufacturer where the method includes reading a configuration file that contains computer system information including manufacturer specific identification information identifying the computer system manufacturer and deciphering data stored on a nonvolatile storage device using the key so as to ensure that the software is installed only on a computer system manufactured by the computer system manufacturer is not persuasive and has been fully addressed above.

Applicant's arguments with respect to claims 10, 18, 20, 22, and 23 have also been fully addressed above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Benjamin E. Lanier

Conferees:

Gilberto Barron

Matthew Smithers The

GILBERTO BARRON TO SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100